

am



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,961	11/27/2001	Kei Suda	15108	1684
23389	7590	02/18/2005	EXAMINER	
SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA SUITE 300 GARDEN CITY, NY 11530			PHAM, TUAN	
			ART UNIT	PAPER NUMBER
			2643	

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/994,961

Applicant(s)

SUDA, KEI

Examiner

TUAN A PHAM

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/27/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 25-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/16/02, 9/17/03, 10/24/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C 19(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 08/16/2004, 09/17/2003, and 10/24/2003 has been considered by Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1- 8, and 11-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Kohlschmidt (U.S. Patent No.: 6,029,061).

Regarding claims 1 and 21, Kohlschmidt teaches a method and a mobile phone having at least one main clock system and operating based on a main clock signal of the main clock system, wherein the main clock system comprising (see figure 1):

a main counter for counting main clocks of the main clock signal (see col.6, ln.1-22); and

power saving means for stopping generation of the main clock signal for a time period, while counting wait clocks of a wait clock signal, for restarting the generation of the main clock signal after the time period, and for controlling the main counter the main counter based on the counted wait clocks as if the main counter always counts the main clocks of the main clock signal (see figure 1, high accuracy clock 101, slow clock 102, CSP 103, DSP 104, col.3, ln.1-40, col.4, ln.31-51, col.5, ln.1-21).

Regarding claim 2, Kohlschmidt further teaches the mobile phone, wherein the power saving means comprises: stop control means for stopping the generation of the main clock signal; correction control means for counting the wait clocks of the wait clock signal for the time period during which the generation of the main clock signal is stopped, and for correcting a count value of the main counter based on the counted wait clocks; and restart control means for restarting the generation of the main clock signal after the time period elapses, such that the main counter counts the main clocks from the corrected count value (see col.3, ln.1-40, col.4, ln.31-51, col.5, ln.1-21).

Regarding claims 3 and 23, Kohlschmidt further teaches the method and mobile phone wherein a frequency of the main clock signal is larger than a frequency of the wait clock signal (see figure 1, high accuracy clock 101 at 13MHz, slow clock 102 at 32.7KHz).

Regarding claims 4 and 24, Kohlschmidt further teaches the method and mobile phone wherein the time period during which the generation of the main clock signal is stopped is predetermined (see col.3, ln.1-40).

Regarding claims 5 and 22, Kohlschmidt further teaches the method and mobile phone wherein the correction control means comprises: counting means for counting the wait clocks of the wait clock signal for the time period during which the generation of the main clock signal is stopped; and calculating means for calculating the main clocks while the generation of the main clock signal is stopped; and setting means for correcting the count value of the main counter based on the calculated main clocks (see col.3, ln.1-40, col.4, ln.31-51, col.5, ln.1-21).

Regarding claim 6, Kohlschmidt further teaches the mobile phone wherein the calculating means comprises: ratio means for determining a frequency ratio of a frequency of the main clock signal to a frequency of the wait clock signal; read means for reading out a count value from the main counter when the generation of the main clock signal is stopped; and means for calculating the main clocks while the generation of the main clock signal is stopped, based on the counted wait clocks of the wait clock signal (see col.3, ln.1-40, col.4, ln.31-51, col.5, ln.1-21, col.6, ln.50-67).

Regarding claim 7, Kohlschmidt further teaches the mobile phone comprising: a battery; and first driving means for driving the ratio means when a voltage of the battery changes (see col.3, ln.40-67).

Regarding claim 8, Kohlschmidt further teaches the mobile phone comprising: temperature sensor; and second driving means for driving the ratio means when the temperature sensor senses change of a temperature of the mobile phone (see col.3, ln.40-67).

Regarding claims 11 and 18, Kohlschmidt teaches a mobile phone having at least one main clock system, the main clock system comprising (see figure 1):

a main clock generator which generates a main clock signal (see figure 1, high accuracy clock 101, col.3, ln.1-10);

a main counter which carries out a counting operation of main clock of the main clock signal in response to the main clock signal generated by the main clock generator (see col.6, ln.1-22); and

a processor which stops the counting operation of the main counter by stopping the generation of the main clock by the main clock generator before entering a waiting operation and changes a count value of the main counter as if the counting operation of the main counter has been not stopped when going out of the waiting operation (see figure 1, DSP 104, col.4, ln.31-51, col.5, ln.1-21).

Regarding claims 12 and 19, Kohlschmidt further teaches the mobile phone wherein the processor comprises: a wait timer which carries out a counting operation of wait clocks of a wait clock signal in response to a wait clock signal for a predetermined

time corresponding to a time period during which the generation of the main clock signal is stopped; and a CPU which operates based on the count value of the main counter in response to the main clock signal (see col.3, ln.1-40).

Regarding claim 13, Kohlschmidt further teaches the mobile phone wherein the wait timer which stops the operations of the main counter and the CPU by stopping the generation of said main clock signal by the main clock generator in response to an instruction from the CPU, and controls the main clock generator to restart the generation of the main clock signal and the CPU to change a count value of the main counter, after the predetermined time elapses (see col.3, ln.1-40).

Regarding claim 14, Kohlschmidt further teaches the mobile phone wherein the CPU changes the count value of the main counter by adding data corresponding to the number of the main clocks while the counting operation of the main counter is stopped, to the count value of the main counter (see col.3, ln.1-40, col.4, ln.31-51).

Regarding claim 15, Kohlschmidt further teaches the mobile phone wherein the CPU calculates the data to be added, based on the wait clocks counted by the wait timer during the predetermined time (see col.3, ln.1-40, col.4, ln.31-51).

Regarding claim 16, Kohlschmidt further teaches the mobile phone wherein the processor further comprises: a clock precision unit which holds a ratio of a frequency of the main clock signal to a frequency of the wait clock signal, and wherein the CPU calculates the data by multiplying the wait clocks counted by the wait timer by the ratio held by the clock precision measuring unit (see col.6, ln.23-67).

Regarding claim 17, Kohlschmidt further teaches the mobile phone wherein the predetermined time is set in the wait timer by the CPU before the wait timer stops the generation of the main clock signal by the main clock generator (see col.3, ln.1-40, col.4, ln.31-51).

Regarding claim 20, Kohlschmidt further teaches the mobile phone wherein the wait timer is shared by the two main clock systems (see figure 3, CALSTM, clock 102, clock 101).

5. Claims 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Roberts et al. (U.S. Patent No.: 6,219,531, hereinafter, "Roberts").

Regarding claim 9, Roberts teaches the mobile phone comprising first and second main clock systems, each of which is same as the main clock system (see figure 2, main VCO, AUX VCO).

Regarding claim 10, Roberts further teaches the mobile phone wherein the wait clock signal is shared by the first and second main clock systems (see figure 4, main VCO 78, AUX VCO 54, REF TCXO 50).

Allowable Subject Matter

6. Claims 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In order to expedite the prosecution of this application, the applicants are also requested to consider the following references. Although Marx et al. (U.S. Patent No. 6,725,067), Wendelrup et al. (U.S. Patent No. 5,943,613), Chateau (U.S. Patent No. 6,564,046), and Kikuchi (U.S. Patent No. 6,542,727) are not applied into this Office Action; they are also called to Applicants attention. They may be used in future Office Action(s). These references are also concerned for supporting the system and method for restarting a reference clock of a mobile station after a sleep period with a zero mean time error.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan A. Pham** whose telephone number is (703) 305-4987. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz can be reached on (703) 305-4708 and

IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to: (703) 872-9306

Art Unit: 2643

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist, tel. No. 703-305-4700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2643
February 11, 2005
Examiner

Tuan Pham


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
BIOLOGY CENTER 2600